

Rpt. 13.

No. 46112

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 7th Sept. 1950 When handed in at Local Office 26.9.1950 Port of GLASGOW 28 SEP 1950

No. in Survey held at Dumbarlon & Greenock Date, First Survey 1-8-50 Last Survey 10th August 1950

Reg. Book. (No. of Visits 4)

Q5059 on the ORDIA Tons Gross 5420  
Net 2990

Built at Dumbarlon By whom built Wm. Denny & Bros Ltd Yard No. 1433 When built 1950

Owners British India Steam Nav. Co. Ltd Port belonging to London

Installation fitted by Wm. Denny & Bros. Ltd. When fitted 1950

Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. - Sub.Sig. - Radar Yes

Plans, have they been submitted and approved Yes System of Distribution No. 10 line Voltage of Lighting 110

Heating - Power 110 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency -

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes Are turbine emergency governors fitted

with a trip switch - Generators, are they compound wound Yes, and level compounded under working conditions Yes,

if not compound wound state distance between generators - and from switchboard - Are the generators arranged to run

in parallel no, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole

Negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing - Have certificates of

test for machines under 100 kw. been supplied Yes and the results found as per Rule Yes

Position of Generators In Engine Room

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and

damage from water, steam and oil Yes Switchboards, where are main switchboards placed Near generators.

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,

steam and oil Yes, what insulation is used for the panels "Lindanyo", if of synthetic insulating

material is it an Approved Type Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as

per Rule - Is the construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches Double pole circuit breakers with overload and

under voltage trips.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Double pole switch and fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule - Instruments on main switchboard 3

ammeters 3 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection - Earth Testing, state means provided -

Earth lamps

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes

make of fuses General Electric Co., are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate 50%, and at what current do the reversed current protective devices operate -

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes

Cables, are they insulated and protected as per Rule Yes, if otherwise than as per Rule are they of an Approved Type -

state maximum fall of pressure between bus bars and any point under maximum load less than 6% are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets Yes Are all paper insulated and varnished cambric insulated

cables sealed at the ends - Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil,

high temperatures or risk of mechanical damage Yes, are any cables laid under machines or floorplates No, if so, are they

adequately protected - Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit -

or of the "HR" type - State how the cables are supported or protected -

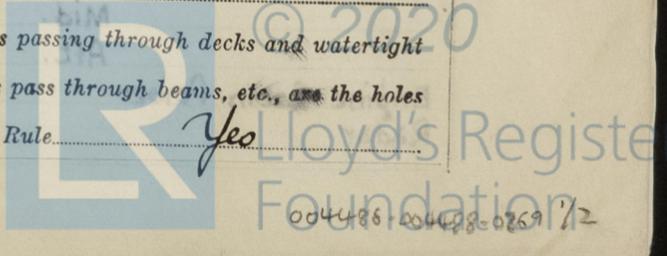
Machinery Spaces:- Cables clipped to steel tray.

Accommodation:- Cables clipped to steel tray or structure.

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes Are all cables passing through decks and watertight

bulkheads provided with deck tubes or watertight glands Yes, where unarmoured cables pass through beams, etc., are the holes

effectively bushed Yes Refrigerated chambers, are the cables and fittings as per Rule Yes



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule Yes Emergency Supply, state position Yes

Navigation Lamps, are they separately wired Yes controlled by separate double pole switches and fuses Yes Are the switches and fuses in a position accessible only to the officers on watch Yes is an automatic indicator fitted Yes Is an alternative supply provided Yes

Secondary Batteries, are they constructed and fitted as per Rule Yes are they adequately ventilated Yes state battery capacity in ampere hours 1000 Ah

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof Yes Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present Yes if so, how are they protected by M. Denny & Co Ltd and where are the controlling switches fitted in the engine room

Searchlight Lamps, No. of 1, whether fixed or portable fixed, and the type of lamp incandescent

Heating and Cooking, is the general construction as per Rule Yes are the frames effectually earthed Yes are heaters in the accommodation of the convection type Yes Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil Yes Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment Yes Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing Yes Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule Yes

Control Gear and Resistances, are they constructed and fitted as per Rule Yes Lightning Conductors, where required are they fitted as per Rule Yes Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with Yes Are all fuses of an Approved Cartridge Type Yes make of fuse Yes Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships Yes Are the cables lead covered as per Rule Yes

E.S.D., if fitted state maker Marconi Devisia location of transmitter Frames 43/44 and receiver Frames 164/165

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations Yes

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory Yes

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				TYPE.	PRIME MOVER.
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN	3	Lunduland Forge & Eng. Co Ltd	35	110	318	550	Steam	Lunduland Forge & Eng. Co Ltd.
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	35	1	61/103	318	332	62	V.I.R.	L.C.B.
" EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" GENERATOR								

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
Lighting: Navigation, Bridge & Boat Dks.	1	19/064	44	83	480	V.I.R.	L.C.
" " " Boat & Upper Dks. Fd.	1	19/052	40	64	370	"	"
Engine & Boiler Rooms	1	7/064	46	46	80	"	L.C.B.
Hold & Tween Deck Forward	1	19/052	35	64	570	"	"
" " " Mid.	1	7/052	18	37	240	"	"
" " " Aft.	1	19/052	36	64	300	"	"
Cargo	1	19/052	41	64	120	"	L.C.
Driehold Ventilation Ford.	1	37/083	157	184	550	"	"
" Mid.	1	19/083	104	118	300	"	"
" Aft.	1	37/072	130	152	280	"	"
Engine Room Power	1	19/083	86	118	120	"	L.C.B.
Radar	1	19/064	42	83	370	"	L.C.

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Wireless, D.F., & E.S.D.	1	7/064	24	46	470	V.I.R.	L.C.
Wireless	1	7/036	15	24	20	"	"
D.F.	1	3/036	7	10	40	"	"
E.S.	1	3/029	2	5	20	"	"
Mid. Accommodation Pt. & Stbd. Crew	1	19/052	38	64	120	"	"
" " Aft.	1	19/052	32	64	380	"	"
Ventilation, Refrigeration & Pantry Units	1	37/072	129	152	120	"	"
D.B.s. 1 B	1	7/029	10	15	10	"	"
" C	1	7/029	14	15	10	"	"
" D	1	7/029	10	15	60	"	"
" 2 B	1	7/036	13	24	90	"	"
" C	1	7/029	12	15	20	"	"
" D	1	7/029	12	15	20	"	"
" E	1	7/029	6	15	370	"	"
Galley	1	7/064	31	46	200	"	"
Crews Galley	1	7/064	25	46	320	"	"
7 A	1	7/036	13	24	160	"	L.C.B.
" B	1	7/036	15	24	90	"	"
" C	1	7/036	15	24	10	"	"
" D	1	7/029	5	15	90	"	"
5 A	1	7/052	11	37	400	"	L.C.
" B	1	7/044	7	31	260	"	"
" C	1	7/029	11	15	10	"	"
" D	1	7/044	12	31	180	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
E.R. Vent Fans	2	2	1	7/036	18	24	100	V.I.R.	L.C.B.
B.R. " "	1	2	1	7/044	18	31	200	"	"

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

FOR WILLIAM DENNY & BROTHERS LIMITED

Electrical Contractors. Date

*Hamphill* Director and Secretary

COMPASSES.

Have the compasses been adjusted under working conditions.

FOR WILLIAM DENNY & BROTHERS LIMITED

Builder's Signature. Date

*Hamphill* Director and Secretary

Have the foregoing descriptions and schedules been verified and found correct.

Is this installation a duplicate of a previous case *No* If so, state name of vessel.

Plans. Are approved plans forwarded herewith *No* If not, state date of approval *29.4.50*

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith *Yes*

General Remarks. (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

*The electrical equipment of this vessel has been installed under Special Survey, tried under full working conditions, and found satisfactory. Materials and workmanship are good.*

*Noted on 4/10/50*

Total Capacity of Generators *105* Kilowatts.

The amount of Fee ... £ *55* : *15* When applied for, *20/9/1950*

Travelling Expenses (if any) £ : : When received, *10*

*B. Gaffner*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 27 SEP 1950

Assigned

*See First Entry Mchng. Rpt. Ex 24205*

2m. 9.40.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

*I.D.O.  
26.9.50*



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